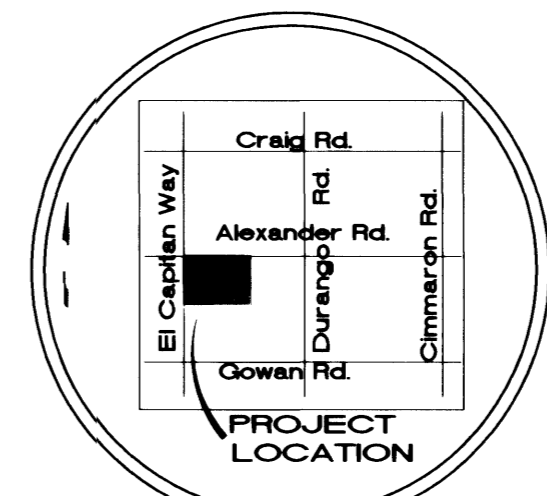
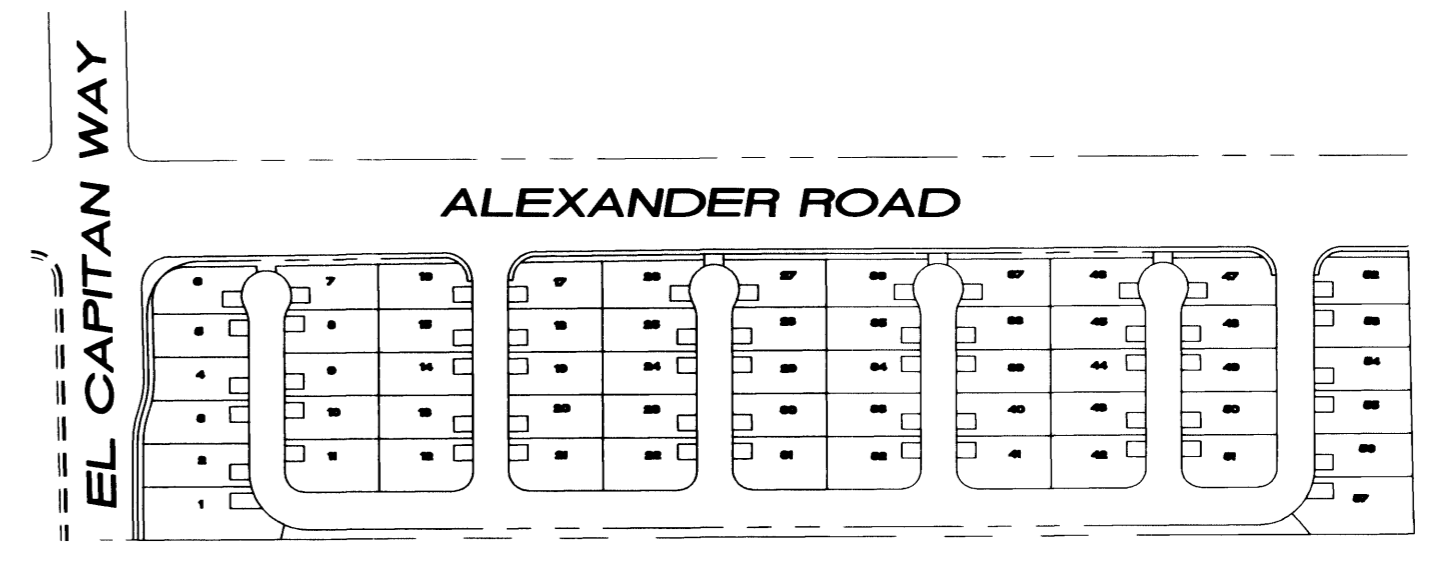
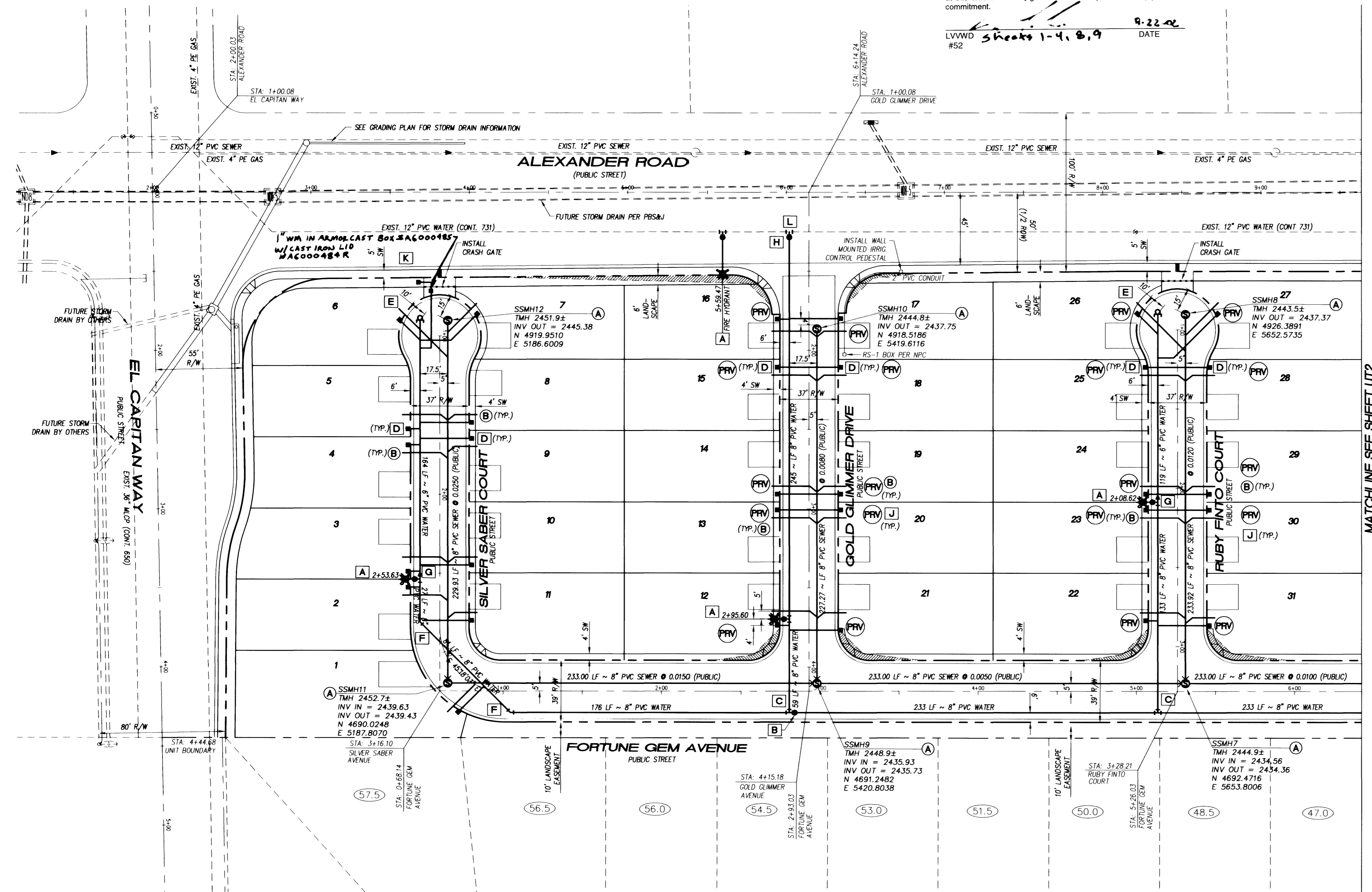
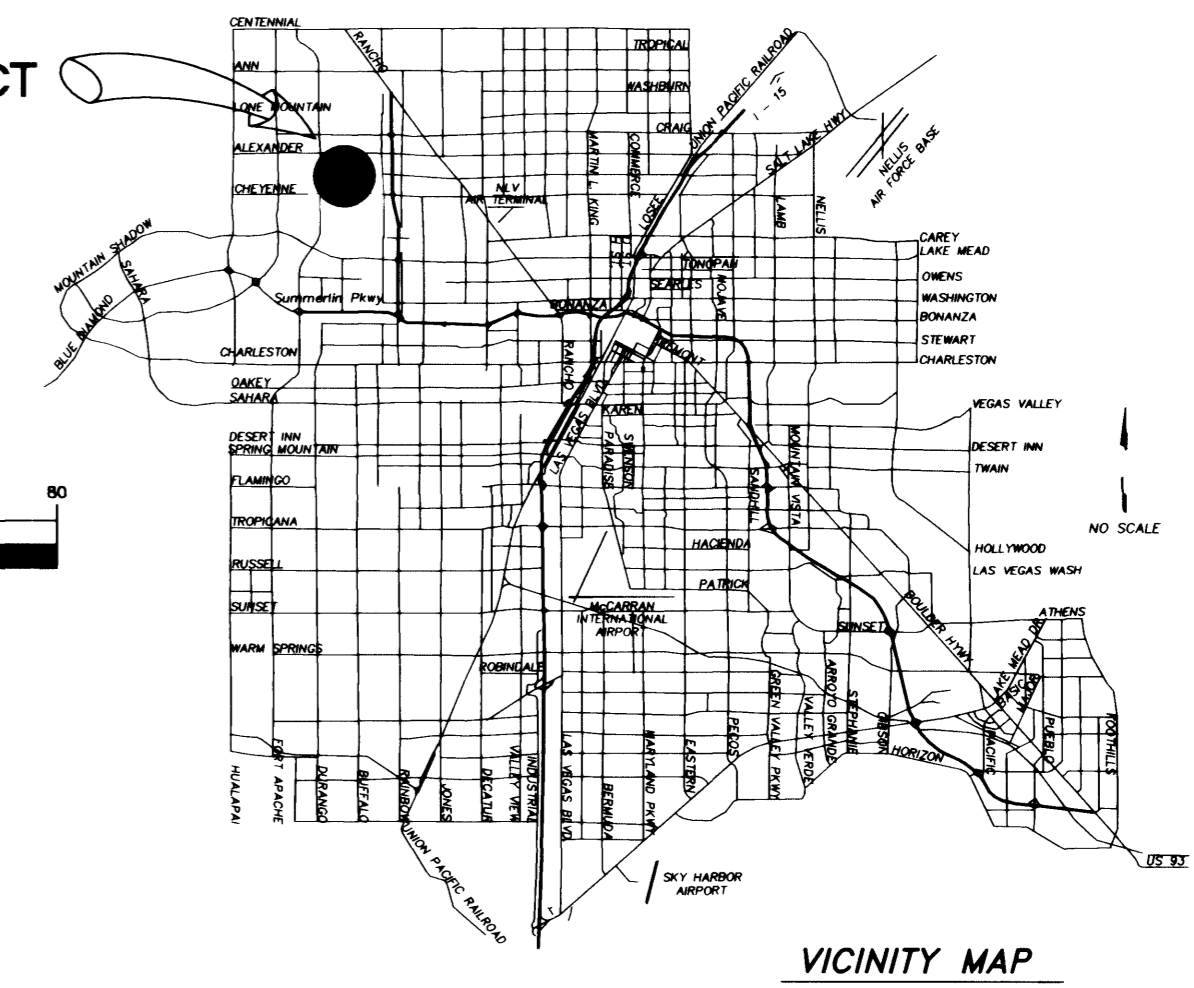
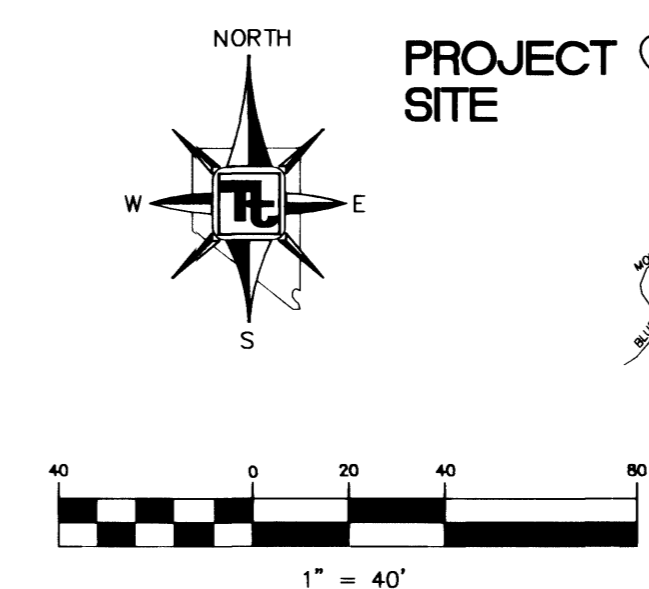


PROJECT NAME: Lone Mountain Springs
 This project water plan complies with the Las Vegas Valley Water District's technical requirements. However, this water plan is **NOT APPROVED FOR CONSTRUCTION** at this time and this signature does not provide or imply a water commitment.
 LVVWD Sheets 1-4, 8, 9 DATE 8-22-02
 #52



KEYMAP
SCALE: 1"=200'

LEGEND:

- PROPOSED PVC SEWER MAIN WITH 4" MANHOLE (SIZE AS SHOWN)
- PROPOSED PVC WATER MAIN AND GATE VALVE (SIZE AS SHOWN)
- PROPOSED FIRE HYDRANT ASSEMBLY
- - - EXISTING PVC SEWER MAIN WITH EXISTING MANHOLE
- - - EXISTING STORM DRAIN MAIN WITH EXISTING MANHOLE
- - - EXISTING PVC WATER MAIN AND GATE VALVE
- - - PROPOSED 4" SEWER LATERAL AND CLEANOUT
- - - PROPOSED 1" WATER SERVICE LATERAL WITH 3/4" OR 5/8" METER, STUB AND PLUG
- EXISTING FIRE HYDRANT ASSEMBLY
- PRESSURE REDUCING VALVE
- BACKWATER VALVE

DISCLAIMER NOTE:
 UTILITY LOCATION SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATIONS.
 NOTIFY ENGINEER IMMEDIATELY IF DISCREPANCIES ARE ENCOUNTERED.

UTILITY NOTE

1. NOTIFY TETRA TECH, INC. IMMEDIATELY OF ANY DISCREPANCIES IN THE PLANS OR CONDITIONS IN THE FIELD.
2. PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL LOCATE AND VERIFY SIZE, MATERIAL, DEPTH, CONDITION, PRESSURE AND LOCATION OF ALL EXISTING UTILITY LINES WITHIN THE CONSTRUCTION AREA. TETRA TECH, INC. SHALL BE CONTACTED ONCE THE UTILITY IS LOCATED.
3. PLANS MAY NOT INDICATE ALL EXISTING UTILITY LINES. CONTRACTOR IS TO EXERCISE EXTREME CAUTION DURING EXCAVATION IN ORDER TO AVOID DAMAGING ANY EXISTING UTILITY LINES. IF THE UTILITY LINES ARE DAMAGED BY THE CONTRACTOR, SUCH DAMAGE SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER AT THE CONTRACTOR'S EXPENSE.
4. CONTRACTOR TO SAWCUT AND REMOVE EXISTING ASPHALT AND CONCRETE AS NECESSARY FOR UTILITY TRENCHES. BACKFILL AND PATCH ALL TRENCHES ACCORDING TO CITY OF LAS VEGAS STANDARDS.
5. ALL WATER SERVICE LINES AND METERS SHALL BE INSTALLED PER LAS VEGAS VALLEY WATER DISTRICT STANDARDS AND SPECIFICATIONS.
6. CONTRACTOR TO FIELD VERIFY LOCATION AND INVERT OF MANHOLE PRIOR TO CONSTRUCTION. TETRA TECH, INC. SHALL BE CONTACTED ONCE THIS INFORMATION HAS BEEN OBTAINED.

SEWER CONTRIBUTION

57 UNITS @ 1 ERU PER UNIT (400 GPD/ERU) = 22,800 GPD
 AVERAGE DAILY FLOW = 22,800 GPD
 PEAK FACTOR = 3.3
 APPROXIMATE PEAK FLOW = 77,240 GPD

APPROVALS

[Signature] 8/29/02
 LAS VEGAS VALLEY WATER DISTRICT DATE
[Signature] 8/21/02
 CITY OF LAS VEGAS FIRE DEPARTMENT DATE

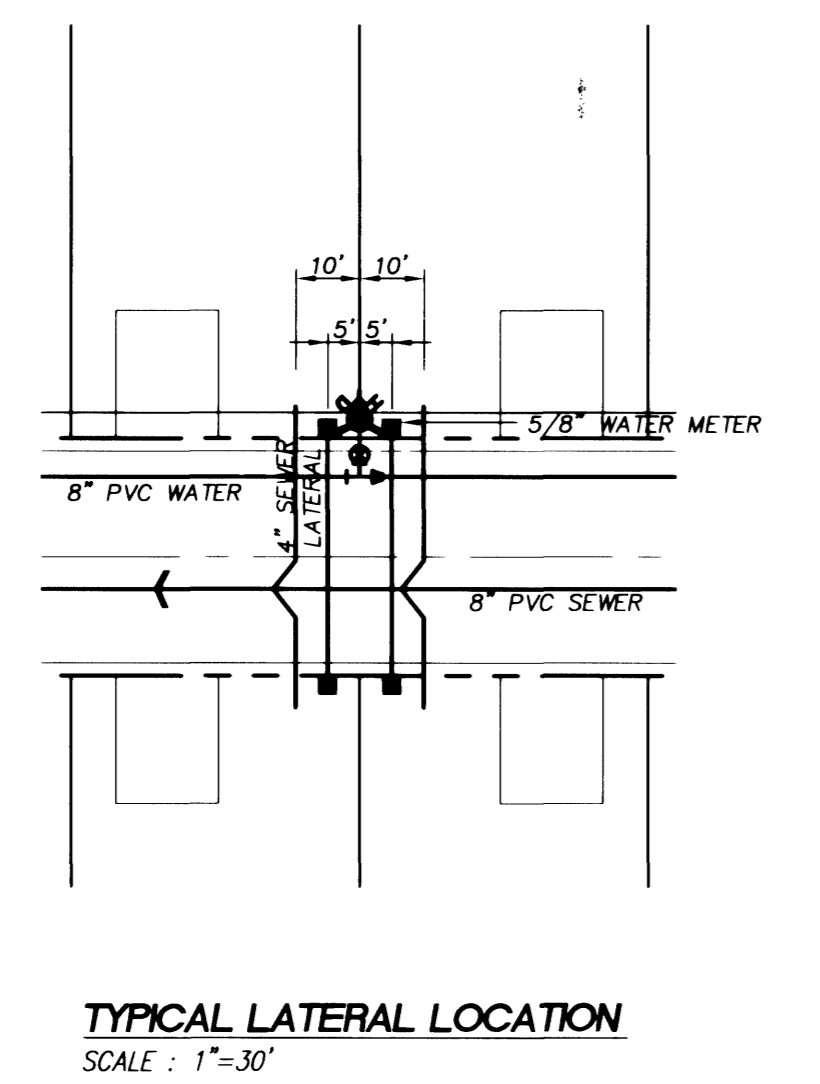
REDUCED PRESSURE PRINCIPLE ASSEMBLY (2) 1':
 APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE NO. 11A. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVVWD. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY. EASEMENT SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.
 (ESN.041)

BENCHMARK
 CITY OF LAS VEGAS BENCHMARK - NO.18 1LV00-4SES
 RIVET AND SQUARE ALUMINUM PLATE IN TOP OF CURB, NORTHWEST RETURN OF ALEXANDER ROAD AND BUFFALO DRIVE
 ELEVATION = 713.8077 METERS (NAVOD88)
 ELEVATION = 23441.88 FEET (NAVOD88)

BASIS OF BEARING
 S 89°41'26" W BEING THE NORTH LINE OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION 9, TOWNSHIP 20 SOUTH, RANGE 60 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA AS SHOWN IN BOOK 89, PAGE 68 OF PLATS IN THE CLARK COUNTY RECORDER'S OFFICE, CLARK COUNTY, NEVADA.

Avoid cutting underground utility lines. It's costly.
 Call before you Dig
 1-800-227-2600
 UNDERGROUND SERVICE (USA)

Avoid overhead power line contact.
 Call before you Overhead
 1-702-593-6111
 NEVADA POWER ENVIRONMENT SAFETY SERVICES DEPARTMENT

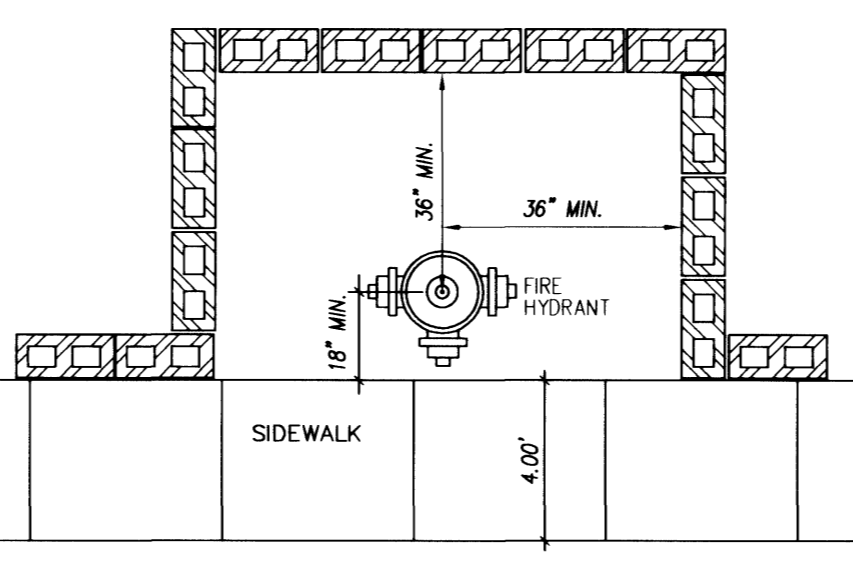


WATER QUANTITIES AND KEY NOTES

A	INSTALL FIRE HYDRANT ASSEMBLY PER UDACS STD. PLATE NO. 7 (INCL. 6" GV)	9 EA
B	8" GATE VALVE PER UDACS STD. PLATE NO. 8	12 EA
C	8" TEE	4 EA
D	5/8" METER AND 1" LATERAL PER UDACS STD. PLATE NO. 1-B	57 EA
E	6" CAP AND BLOWOFF ASSEMBLY PER UDACS STD. PLATE NO. 4	4 EA
F	8" 45° ELBOW	4 EA
G	8" x 6" REDUCER	4 EA
H	12" x 8" TAPPING SLEEVE	2 EA
J	INDIVIDUAL PRESSURE REDUCING VALVE	46 EA
K	1" IRRIGATION METER W/ 1" RPPA PER UDACS PLATE NO. 1D & 11A	2 EA
L	8" TAPPING VALVE	2 EA
	8" PVC WATERLINE	2,122 LF
	6" PVC WATERLINE	521 LF

SEWER QUANTITIES AND KEY NOTES

A	CONSTRUCT STANDARD ECCENTRIC MANHOLE PER DCSWCS PLATE SD-1	12 EA
B	INSTALL SEWER LATERAL PER DCSWCS PLATE SD-17	57 EA
	8" PVC SEWERLINE	998 LF



FIRE FLOW CALCULATIONS

FIRE FLOW REQUIREMENT IS: 1500 GALLONS PER MINUTE AT 20 PSI RESIDUAL PRESSURE.

BASED ON:
 SQUARE FOOTAGE: 2523 SQUARE FEET
 LARGEST AREA BETWEEN 4-HOUR: N/A
 AREA SEPARATION WALLS: N/A SQUARE FEET
 BUILDING HEIGHT: 25' FEET
 NUMBER OF STORIES: 2 FLOORS
 TYPE OF CONSTRUCTION: N-V
 OCCUPANCY:
 FULL AUTOMATIC FIRE SPRINKLER SYSTEM: NO

REVIEWED BY: *[Signature]*
 DATE: 8/21/02

NOTE:
 INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER MANUFACTURER INSTRUCTIONS.

NOTE:
 THIS PROPERTY MAY HAVE STATIC WATER PRESSURE IN EXCESS OF 80 PSI. THE UNIFORM PLUMBING CODE REQUIRES THAT INDIVIDUAL ON-SITE (PRIVATE) PRESSURE REDUCING VALVES BE INSTALLED WHENEVER THE PRESSURE EXCEEDS 80 PSI. PRV'S ARE THE DEVELOPER'S RESPONSIBILITY AND WILL NOT BE INSPECTED OR INCLUDED IN THE ACCEPTANCE OF LVVWD FACILITIES.
 (ESN.041)

KB HOME NEVADA, INC.
 750 PILOT ROAD, SUITE F
 LAS VEGAS, NEVADA 89119
 (702) 614-2500

TETRA TECH, INC.
 INFRASTRUCTURE SOUTH WEST GROUP
 401 N. Buffalo Dr. Suite 100, Las Vegas, Nevada 89145
 (702) 242-4600

UTILITY PLAN
 LONE MOUNTAIN SPRINGS
 CITY OF LAS VEGAS, NEVADA

PROJECT NO: P08042-0029
 SHEET: UT1
 8 OF 19
 DRAWING NO: 307Y-4717